

## Gene Expression ratios of Selected 446 Genes in Oxidant Treatment Experiments

1. Contained in this downloadable data file are the **averaged** gene expression ratios from 5 time points (0, 1, 3, 7 and 24 hour) and 3 treatments (hydrogen peroxide (HP), menadione (MEN) and t-butyl hydroperoxide (TBH)). The format of the file is,
  - a. Tab-delimited text file
  - b. The first row provides the column titles (e.g., HP3h represents hydrogen proxide treatment at 3 hour time point).
  - c. The first column is the clone ID for each gene, where prefix IMAGE indicates IMAGE clones from Research Genetics, and prefix IncytePD for clones from Incyte.
  - d. The second column is the clone Title.
  - e. The 3rd to 17th columns contain averaged (from 3 replicated slides) gene expression ratio for each gene in each experiment.
2. Gene expression ratio was evaluated by sample fluorescent intensity divided by reference intensity for each printed location. In most of the data analysis methods cited in the paper, we performed a logarithm-transform to convert the ratio data in order to achieve the symmetric property from over-expression to under-expression range. These methods include (but not limit to) MDS, template-based clustering,  $\chi^2$ -test and *t*-test. We provide the normalized ratio data (NOT log-transformed!) in the downloadable file such that some other data preprocessing methods may be attempted.

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